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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/810,955 | 03/26/2004 | Robert C. Arnott | 5752 | 9824 |
| 7590 | 12/21/2005 | | EXAMINER | |
| Charlotte C. Wilson Legal Department, M-495 PO Box 1926 Spartanburg, SC 29304 | | | MATZEK, MATTHEW D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | |
| DATE MAILED: 12/21/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------------------|-------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/810,955 | ARNOTT, ROBERT C. |
| | Examiner Matthew D. Matzek | Art Unit 1771 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 March 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-32 is/are pending in the application.
 4a) Of the above claim(s) 1-20 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 21-32 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/20/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8, drawn to a finish composition comprising two urethane polymers, classified in class 525, various subclasses.
- II. Claims 9-20, drawn to a process for making a flame retardant coated fabric, classified in class 427, various subclasses.
- III. Claims 21-32, drawn to a flame retardant coated fabric, classified in class 442, subclass 302..

The inventions are distinct, each from the other because of the following reasons:

1. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the instantly claimed process may be used to coat any number of products including molded substrates and non-flame retardant fabrics.
2. Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as resistant coating for a

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number of products including molded substrates and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Inventions III and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the instantly claimed article may be made by incorporating the flame retardant into the polymeric resin used to create the fibrous article rather than exhausting it into the fabric.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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6. During a telephone conversation with Charlotte Wilson on 12/5/2005 a provisional election was made with traverse to prosecute the invention of a flame retardant fabric, claims 21-32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Date et al. (US 4,104,222) in view of Masumoto et al. (US 5,981,407).

a. Date et al. teach a dispersion of a linear polyester resin for use in improving the physical properties of polymer articles. The dispersion may be used as a coating or impregnant (Abstract). The linear polyester resins used in the applied invention include those produced from aliphatic carboxylic acids resulting in aliphatic polyester resins (col. 1, lines 29-36). The compositions of the applied invention may be used on nonwoven, woven or knitted fabrics (col. 3, lines 20-25). Example 3 teaches a first to second urethane polymer ratio of 19:1 (polyester/polyether copolymer). Date et al. teach the use of a number of aliphatic polyester copolymers (col. 1, lines 46-69). The coating of Date may be used in the processing of flame retardant textile products. The Examiner takes

the position that a urethane copolymer that anticipates the instantly claimed ratio levels on a solids basis reads on the polymeric limitations of independent claim 21.

b. Although Date et al. does not explicitly teach the claimed features of the first urethane polymer having an elongation at break of at least 500% and the second urethane polymer having an elongation at break of at least 500%, it is reasonable to presume that said properties are inherent to Date et al. Support for said presumption is found in the use of like materials (i.e. first and second urethane polymers at the instantly claimed levels). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed properties of the first urethane polymer having an elongation at break of at least 500% and the second urethane polymer having an elongation at break of at least 500% would obviously have been present one the Date et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote (CCPA 1977) as to the providing of this rejection made above under 35 USC 102. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner*, et al. (CCPA) 186 USPQ 80. The invention of Date et al. is silent as to the use of flame retardant fabrics.

c. Matsumoto et al. teach a flame retardant fabric (Abstract) comprising a halogen containing polyester fiber (col. 2, lines 27-30). The halogen containing fiber may comprise a phosphorus compound such as tris(2,3-dichloropropyl) phosphate (col. 3, lines 15-17).

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- d. Since Date et al. and Matsumoto et al. are from the same field of endeavor (i.e. flame retardant fabrics), the purpose disclosed by Matsumoto et al. would have been recognized in the pertinent art of Date et al.
- e. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the article of Date et al. with the flame retardant cloth of Matsumoto et al. The skilled artisan would have been motivated by the desire to make the article flame retardant.
- f. The invention of Date et al. is silent as to the state of clarity and the instantly claimed dry add-on levels of the polymeric coating. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the polymeric coating of Date et al. transparent. The invention of Date et al. is directed to coating various fabrics to enhance their physical properties (col. 3, lines 10-50). A skilled artisan would have been motivated to make the polymeric coating of Date et al. transparent so that the aesthetics of the coated article were not adversely affected, while enhancing its physical properties.
- g. Date et al. discloses the claimed coating except for the instantly claimed add-on levels. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have coated the fabrics with solids add-on levels between about 2.5% and 5%, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the

optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

h. Although, Date et al. nor Matsumoto et al. explicitly teaches the claimed features of the passing the NFPA Small Scale 701 Vertical Flame Test (1989) or having hand of at least 900 grams in the wales direction and at least 400 grams in the courses direction, it is reasonable to presume that said properties are inherent to combined product of Date et al and Matsumoto et al. Support for said presumption is found in the use of like materials (i.e. first and second urethane polymers coated on a chlorinated phosphate ester fabric). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed properties of passing the NFPA Small Scale 701 Vertical Flame Test (1989) or having hand of at least 900 grams in the wales direction and at least 400 grams in the courses direction would obviously have been present one the combined product of Date et al. and Matsumoto et al. is provided. Note *In re Best*, 195 USPQ at 433, footnote (CCPA 1977) as to the providing of this rejection made above under 35 USC 102. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner, et al.* (CCPA) 186 USPQ 80.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mdm

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PRIMARY EXAMINER